Catalogue of American Amphibians and Reptiles.

Lieb, C.S. 1996. *Dendrophidion percarinatum*.

Dendrophidion percarinatum (Cope)
Brown Forest Racer

Drymobius percarinatus Cope, 1893 (1894):344. Type-locality, "Boruca and Buenos Aires," Canton de Buenos Aires, Puntarenas Province, Costa Rica. Of the original two type-specimens, the Buenos Aires syntype is apparently lost, and the surviving syntype is now American Museum of Natural History (AMNH) 17366, adult male, collected by George K. Cherrie on 12 December 1891 (not examined by author).
Drymobius dendrophis: Boulenger, 1894:16 (part).
Cacocalyx percarinatus: Cope, 1895:205.
Dendrophidion percarinatus: Stuart, 1932:6.
Dendrophidion percarinatum: Dunn, 1944:477 (part).

• **Content.** No subspecies have been described.

• **Definition.** This species of *Dendrophidion* reaches a maximum total length of 113 cm. Seventeen dorsal scale rows are present anteriorly and 15 posteriorly, with the superior rows often weakly keeled. The ventral scales range from 153-169, subcaudals from 133-164, the cloacal scute (= anal plate) is invariably divided, and the dorsocaudal scale row reduction from eight to six scales occurs between subcaudals 7 and 24. The hemipenes lacks basal hooks or spines but possess numerous small spines distally and single-flounced apices.

The ground color of the dorsum in life is pale to dark brown; the venter is immaculate white or pale yellow. Faint, dark-edged pale crossbands are usually present on the neck, and are less than one-half scale row wide. The dorsal coloration is otherwise uniform anteriorly, and with dark longitudinal stripes and pale ocelli posteriorly.

• **Diagnosis.** *Dendrophidion percarinatum* may be distinguished from *D. dendrophis*, *D. nuchale*, and *D. vinitor* (*Dendrophis* species group, Lieb, 1988) by a dorsocaudal scale row reduction from eight to six rows on the tail anterior to subcaudal 25, and by the absence of basal spines or basal hooks on the hemipenes. Within its own species group, *D. pericarinatum* differs from the lower Central American species *D. paucicarinatum* in possessing <170 subcaudals and in lacking dark suffusions along the margins of the ventral scales, and differs from the poorly known taxon *D. boshelli* of Colombia in having 17 dorsal scale rows on the anterior body. A posterior dorsal color pattern that includes pale ocelli in combination with dark dorsolateral and lateral stripes distinguishes *D. percarinatum* from the Andean species *D. bivittatum* (Colombia) and *D. brunneum* (Ecuador and Peru).

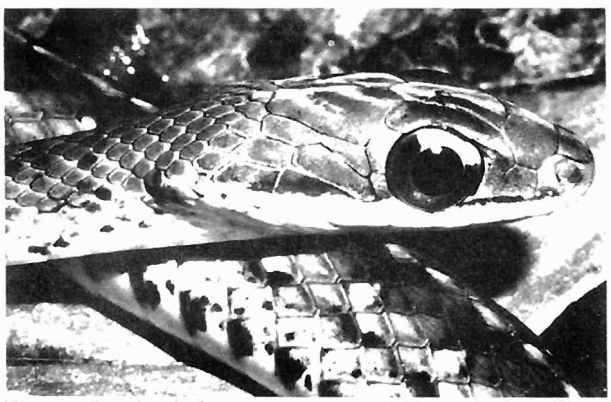
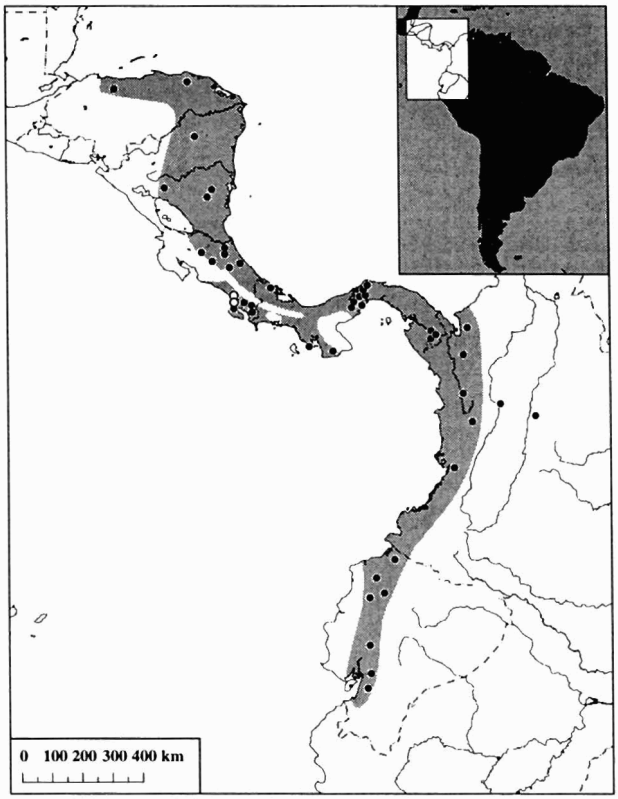


Figure. *Dendrophidion percarinatum*, living adult, from Finca La Selva, Heredia Province, Costa Rica. Photo by R.W. Van Devender.



Map. Distribution of *Dendrophidion percarinatum*. Circles mark the type-localities, and dots indicate other records.

• **Descriptions.** An overall descriptive table of variation for this species is in Lieb (1988). Descriptive data on individual specimens are reported in Cope (1895, as *Cacocalyx percarinatus*), Dunn and Emlen (1932, as *Dendrophidion dendrophis*), Schmidt (1933, as *D. dendrophis*), Gaige, et al. (1937, as *D. dendrophis*, but a mixture of *D. percarinatum* and *D. vinitor*), Dunn and Bailey (1939, as *D. dendrophis*, but a mixture of *D. percarinatum* and *D. vinitor*), Dunn, (1944, but mixed with *D. nuchale*), Taylor (1954), Smith and Grant (1958), and Wilson and Meyer (1985).

• **Illustrations.** A black-and-white photograph appears in Taylor (1954). The hemipenis was figured by Cope (1895).

• **Distribution.** *Dendrophidion percarinatum* is distributed through Caribbean lowland rainforest habitats from northern Honduras and eastern Nicaragua south to eastern Panamá to elevations of about 550 m. On the Pacific versant, this species occurs in lowland and premontane forest from sea level to about 1200 m, as such habitats are distributed from southwestern Costa Rica through Panamá to the Chocó region of Colombia and Ecuador. Isolated populations tentatively referred to this species occur in the Departaments of Antioquia and Cundinamarca in north-central Colombia; these snakes are somewhat diver-

gent in the anterior body color pattern from *D. percarinatum* in other parts of the range.

• **Fossil Record.** None.

• **Pertinent Literature.** The most recent overall review of relationships, distribution, and variation was by Lieb (1988). Sexton and Heatwole (1965) presented information on diet; Dyer and McNair (1974) reported on digenean parasites. Descriptions of the type localities are in Savage (1974); Taylor (1954), however, restricted the type locality to Boruca, Costa Rica. Other published references are few, and excepting the descriptive accounts cited above, are mostly confined to checklists containing limited distributional information (e.g., Smith, 1958; Savage and Villa, 1986). A bibliography of literature applying to this species in Central America is in Villa et al. (1988), but much of the literature utilizing the name *Dendrophidion percarinatus* (*sic*) for South American populations refers to another species (see Remarks).

• **Remarks.** Subsequent to his description of *Drymobius percarinatus*, Cope (1895) placed the taxon in a new genus (*Cacocalyx*). Stuart (1932) utilized Cope's figure of the hemipenis in that work to allocate *Cacocalyx* to *Dendrophidion*. Smith (1941) pointed out that the Cope name *percarinatus* applied to Central American specimens of *Dendrophidion* with divided cloacal scutes and relatively long tails, thus correcting the 19th century notion that *D. dendrophis* (Schlegel) was distributed throughout Central and South America (e.g., Boulenger, 1894). Upon not finding Colombian specimens matching the descripton of *dendrophis*, Dunn (1944) came to this conclusion as well. What neither Smith nor Dunn realized was that the characters they utilized for recognizing *Dendrophidion percarinatum* also applied in part to *D. nuchale* (Schlegel), a species widely sympatric with *D. percarinatum* over most of their ranges (Lieb, 1988). As a result of this confusion, later authors erroneously referred populations of *nuchale* in Colombia and Venezuela to *D. percarinatum*. These works include Daniel (1949), Roze (1959, 1966, 1970), Test et al. (1966), and Lancini (1979).

• **Etymology.** The name *percarinatum* consists of a compound Latin adjective meaning "very keeled" or "completely keeled." As a group A adjective, the *-um* ending is appropriate for agreement with the gender of the generic name (neuter).

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